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LONDON COUNTY COUNCIL

TO

FOSTER-MOTHERS

How to Keep Children Well and Strong

Compiled from the Booklet "To Wives and Mothers," with permission of the National League for Health, Maternity and Child Welfare, 117, Piccadilly, W. 1., and published by the League.

1924

TO FOSTER-MOTHERS

HOW TO KEEP CHILDREN WELL AND STRONG

TABLE OF CONTENTS

	PAGE
Preface	—
Hints to Foster-Mothers on the Care of a Young Baby	3
Bottle Feeding	6
The Feeding of Children from six months and onwards	8
Diet Sheets for six months and onwards	13
Why does Baby Cry?	17
Exercise Baby's Muscles and Senses	18
Infantile Diarrhœa	19
Hints on the Management of Children from 1—5	21
Character Training	22
The Care of the Teeth	24
Common Ailments	26
Adenoids	28
Colds	30
Infectious Diseases and their Dangers	31
(*a*) Measles	31
(*b*) Whooping Cough	33
(*c*) Mumps	34
(*d*) Chicken Pox	34
What to do in Emergencies	35
Simple Recipes	37
Clean Milk	39
Cleanliness in the Home	40
Fresh Air and Ventilation	41
Sunlight	41
The Dangers of Flies, Fleas and other Vermin	42
Hints on Washing	46
Feeding Table for Bottle-Fed Infants	47

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PREFACE

This pamphlet is issued by the London County Council for the guidance of persons residing in the County of London having in their charge nurse infants within the meaning of the Children Act, 1908. The Council acknowledges the courtesy of the National League for Health, Maternity and Child Welfare in permitting the use for the compilation of the pamphlet of portions of the publication "To Wives and Mothers."

JAMES BIRD,
Clerk of the London County Council.

THE COUNTY HALL,
WESTMINSTER BRIDGE, S.E. 1.,
July, 1924.

Hints to Foster-Mothers on the Care of a Young Baby.

CARE OF THE SKIN AND MUCOUS MEMBRANE.

A baby's skin is extremely tender for the first few weeks and quite gentle rubbing may cause a tiny sore into which a germ may enter and set up inflammation or eczema. Young babies have no power to kill germs when they get into the system, so they must be guarded from them as much as possible.

The mucous membrane of the mouth is also very easily rubbed and will then admit the thrush germ. For this reason it is now often advised not to wash the mouth at all, but to be very particular that everything that goes into it is absolutely clean, e.g., the nipple, but, if washed, it must be with a swab of wool dipped into boiled water and passed over the tongue, not inserting the finger. (See also page 27.)

The eyes require to be carefully bathed with weak boracic lotion (see page 38), but the least discharge or even stickiness of the lids is serious and a doctor should immediately see the child.

The nostrils and outer ears should be cleansed after the bath with a swab of wool and the lotion.

The Bowels.—Teach regular habits by holding out and training to use a soap dish or porringer after the bath and also at a fixed time in the evening. When cleansing the buttocks after an action, wipe them very carefully, away from the genitals (i.e., from front to back), and if possible wash them with warm water. A small piece of clean rag laid inside the napkin, and burnt when soiled, saves washing.

Bathing.—A baby should have at least one bath daily. The bath should be thoroughly washed out before being used for the child and in cold weather a screen should be placed round the chair. Windows should be closed and baby undressed and dressed quickly while very young to avoid a chill. Boiled water (or soft), is best. Temperature 100° Fah. for the first six weeks, then **very** gradually reduced to 80°. Use good quality soap and apply it with your hand. Instead of a sponge use a soft piece of butter muslin which can be frequently boiled. Dry gently by dabbing rather than rubbing. Finally put plain starch powder on your hand and pass it over the skin, especially the creases, but never let it cake on. The buttocks should be smeared with a little hazelin cream to harden them.

Feeding.—This is dealt with in detail on pages 6 to 16. At the end of the book will be found a diet table for infants ; this, if desired, may be detached and pasted on a card for hanging up.

Sleep and Cots.—Encourage regularity from the beginning by waking the baby at the fixed feeding hours during the day but training to sleep straight through the night. The room should be cool and well ventilated. As far as possible, it should sleep in the open air or in a room close to a widely opened window with a screen between cot and the door. Do not let it sleep in the living room. At night the head of the cot should not be near the head of the mother's bed, so that the child does not breathe the bad air, already used up by the parents. From six months to one year the baby should be put to sleep regularly for two hours in the morning and again in the afternoon.

A good cot can be made from an orange or egg box or from a banana or onion crate, but if it can be afforded a wicker one is better and more convenient for carrying about. It should be lined, at least round the head with butter or Madras muslin, lightly tacked on to allow of frequent washing. The best way to make it up, especially for a delicate baby, or one born in the winter, is first to lay inside a blanket large enough, when the mattress is placed on it, for its edges to come well over both sides and one end. The mattress and pillow can be of calico filled with three parts chaff and one part bran. One end should be lightly sewn so that it is easily emptied, washed and refilled with fresh stuffing. Over the mattress lay a piece of blanket, with a strip of American cloth, or mackintosh or even brown paper, and then two small blankets or a large soft woollen shawl to cover the child. If very small it should be wrapped in the shawl at first. The sides of the large blanket are then brought over and finally the end is brought up and safety pinned, and baby is in a cosy sleeping bag. In very cold weather a hot water bottle may be put between the folds of the blanket or when out of doors until baby can keep quite warm. If a banana crate is used, one should be chosen which has the two ends and at least eight of the cross bars strong and not much split. All the cross bars should be taken off carefully by pulling out the nails. Any rough places should be smoothed with coarse sandpaper, and it will look much better if the whole be sandpapered. The bars should be nailed on to the end pieces about 2½ inches from each other, to form the bottom and sides of the cot.

It takes three yards of unbleached calico to line the cot. Tack it over each side top bar to form a hammock, nearly touching the foot of the cot. There will be enough calico left over to line the head and the foot of the cradle. The mattress is the same as that suggested for wicker cradles. Either cot can be put on two chairs tied securely together for placing in the open air.

Exercise.—This is very necessary for even young babies. See "Exercise Baby's Muscles and Senses" (pages 18 and 19).

Perambulator.—It is well worth while to make every effort to obtain even a secondhand one, as no child under one year should be put in a push cart. Remember, however, that the air under the hood soon becomes unhealthy from baby's breath. There should be a straight-up airway from baby's mouth to the air, **clear of the hood.** If laid back, the hood acts as a screen from the wind, and in strong sun a canopy is needed, but the air must be moving freely over the child's face to give vitality and stimulation.

Clothing.—All clothing must be soft, warm, absorbent, elastic and evenly applied with no tapes round the body. Three layers are sufficient. One of these two methods is best:—

1st Layer. Woven or knitted long sleeved vest, belt (knitted) and socks.

2nd ,, Soft flannel petticoat, to cover the feet, without sleeves but with shoulder seams to cover the collar bones. No tapes round the body.

3rd ,, A thin, soft frock. A carrying shawl.

Or,

1st Layer. Same as above.

2nd ,, Knitted leggings with body.

3rd ,, Knitted jumper. Carrying shawl for at least three months.

If preferred the jumper may be replaced by a soft frock.

For out-of-door wear in winter a soft knitted hood, coat and shawl are best.

SPECIAL NOTE.

Do not give soothing syrups, teething powders, or purges without the doctor's orders.

If a baby cries often,

does not increase in weight,

does not sleep,

is frequently sick,

is constipated,

has diarrhœa, snuffles, cold feet, a discharge from the eyes, or a rash on the body,

it is not well, and should be seen by the doctor.

Never allow baby to use a comforter or "dummy."

Bottle Feeding.

NOTE.—Although the following advice will apply to the majority of babies, it is not suggested that it will suit every baby.

Give cow's milk, or full cream dried milk, until the baby is about nine months old. Do not give sweetened condensed milk or any other infant food unless ordered by the doctor.

Never give separated or skimmed milk to a baby.

Milk.—Obtain good, fresh milk, and prepare the whole day's food as soon as it arrives. After boiling cover over and keep the stock mixture in a cool place, standing the jug which contains it in cold water. If dried milk is used the lid must be kept on the tin and freshly-boiled water used for each meal, each feed being made separately.

Bottles with long tubes should **never** be used. As soon as the bottle is empty wash it and the teat thoroughly, first in cold, then in very hot water after each feed, and keep them in clean cold water until the next feed. When washing the teat, turn it inside out and rub it with salt, then hold it under the tap. Bottles and teats should be boiled at least once a day.

Measure the milk carefully (in an accurate measure, not in spoons, which vary greatly in size). Give the same amount at each feed, not more at one time than at another. If the child does not finish the feed, what is left should **not** be saved for the next feed.

If babies are breast-fed they receive exactly the same food from the time the milk comes in (about the third day) up to the time of weaning (8th or 9th month), neither stronger nor weaker. There is no reason why bottle-fed babies should be fed differently.

If at any time a baby cannot digest his food, other food should not be tried, but a doctor should be consulted.

To Prepare for the Day's Supply.—If cow's milk is used it may be prepared of the same strength as breast-milk in the following manner :—

To make 1 pint (20 ozs.), take of
Milk, ½ pint (10 ozs.) ; or dried milk, 1¼ ozs. by weight.
Cream, 1 oz., or a substitute of equal value ;*
Sugar, 1 oz. ;
Water to make a total of 20 ozs., or 1 pint.

*Creams vary greatly in strength, but this is taken to imply that the cream used is of the best kind. (See also page 8.) If for any reason cream or a substitute is not used, an appropriate extra quantity of milk and water must be added.

Note.—If a larger or smaller quantity of this stock mixture is required for the 24 hours' supply, a double quantity may be made up, or, if necessary, half or one quarter the amount.

If **dried milk** is used instead of ordinary cow's milk, it should be noted that one heaped teaspoonful (one drachm by weight) of the dried milk when dissolved in 1 oz. of water is of the same strength as ordinary cow's milk. Each feed should be made up as required.

Times of Feeding.—From birth to the 4th or 5th month an infant should be fed at three-hourly intervals (six feeds) during the day, and not at all during the night. The best times are :— 6 a.m., 9 a.m., 12 mid-day, 3 p.m., 6 p.m., and 9 p.m. From the 4th or 5th to the 9th month five feedings are sufficient in the 24 hours, and from the 9th to the 12th month four feedings are advised.

The Quantity.—As the infant grows older the quantity must be gradually increased, but the food itself should not be made stronger. In the following table the quantities required for the 24 hours and at each feeding are given :—

At 1 month old	6 feeds of	2½–3 ozs.	= 15–18 ozs.	in the 24 hours.	See Note on page 6.
„ 2 months	„ 6	„ 3½ ozs.	= 21	„ „ „	
„ 3 „	„ 6	„ 4 „	= 24	„ „ „	
„ 4 „	„ 6	„ 4½ „	= 27	„ „ „	
„ 5 „	„ 5	„ 6 „	= 30	„ „ „	
„ 6 „	„ 5	„ 6½ „	= 32½	„ „ „	
„ 7 „	„ 5	„ 7 „	= 35	„ „ „	
„ 8 „	„ 5	„ 7 „	= 35	„ „ „	
„ 9 „	„ 4	„ 8 „	= 32	„ „ „	

From eight months onwards some solid food is given and therefore the milk need not be increased.

GENERAL INSTRUCTIONS FOR BOTTLE-FEEDING.

From 1st to 14th day.

Note.—Newly-born infants have very feeble powers of digestion, it is therefore most desirable to ask a doctor before trying experiments with possibly unsuitable foods. For the first fortnight it is wise to peptonize the milk mixture or use a whey mixture (page 38) and work up to the milk mixture gradually. If this cannot be done, tablets of citrate of soda, 2 grains in each, can be bought at a chemists and one should be dissolved in each feed for the first month to soften the curd.

Times of Feeding.—6 a.m., 9 a.m., 12 mid-day, 3 p.m., 6 p.m., 9 p.m. (Train the baby from the first not to wake up and require a night feeding.) From 5 months, 6 and 10 a.m., 2, 6, and 10 p.m.

Quantity.—Begin by giving ½ oz. or less at each feeding and gradually increase up to 2 ozs. at the 14th day.

From 14th to 28th day.

Times of Feeding, as above (6 feeds).

Quantity.—Begin by giving 2 ozs. at each feed and gradually increase to 3 ozs. (6 feeds).

From this date (one month) follow the table (see page 7), and at six months refer to page 13 for additions to the plain milk diet.

NOTES.

Cream.—If cream cannot be procured some other animal fat must be substituted. The best is Cod Liver Oil Emulsion which is generally to be obtained. It is used in the same quantities as the cream and mixes well with the feed. If the emulsion is unobtainable a tablespoonful of the pure oil (which is two or three times as strong as the emulsion) is sufficient for the whole day. It can be measured out into a cup and a little given after each feed from a teaspoon. It may be noted that butter has the same fat value as cod liver oil.

Sterilization of Food.—It is always advisable to bring the stock mixture to the boil in order to kill germs and keep it sweet. After boiling it should be cooled down quickly and kept in a cool place. As the times of feeding arrive a sufficient amount should be taken from stock and warmed to blood heat.

Vitamins.—When infants are artificially fed they should always receive in addition to their ordinary feedings from 1 to 3 teaspoonsful of uncooked fruit juice (orange or lemon mixed with a little sugar and water), which contain the anti-scurvy vitamin. These may be given independently of the bottle feedings. (See page 38.)

The Feeding of Children from Six Months and Onwards.

When the teeth begin to appear and the child becomes more active a change in the diet should begin—very gradually at first. The period from about six months to one year should be used as a gradual preparation or education for dealing with ordinary solid food, as by one year a child should be taking three meals or at the most four meals a day with about one pint of milk to drink.

Before giving the details of the diets advised it will be well to consider the general question of Food.

GENERAL REMARKS ON FOOD.

Food is required by everyone for four purposes :—

(1) " Growth " of bones, muscles, nerves, &c.

(2) " Warmth " of the whole body.

(3) " Activity " or Movement of every kind—kicking, playing, breathing, crying, walking and exertion of all kinds.

(4) " Secretions " or Body Juices, e.g., those needed to digest the food (gastric juice) to keep the mouth clean and moist (saliva) and many others.

The normal diet of a baby—its mother's milk—is a most wonderful food, for it provides for each of these four requirements in a manner sufficient for its needs up to the time when teeth begin to appear and he begins to take more exercise. Mother's milk is so easily digested that the stomach has, so far, had very little to do, but at about this time Nature begins to strengthen the child's digestion so that he may get the benefit of different foods, which a little later will be more suitable for his needs.

Most of these foods require mastication, and it is important to remember that the jaws now need more work to do to draw more good blood to them and so prepare them for making strong teeth. This means that throughout childhood hard and not soft food should be given to encourage mastication. Dentists blame " pap-foods " for many of the teeth troubles of school children.

Foods can be divided up, roughly, into classes for the " big four " requirements :—Growth, Activity, Warmth and Secretions. The **" Growth "** class, as easily seen, is more important for children than for adults, as when growth has finished (and this is not till about 21 years of age) the body has only to be kept in repair. Children, especially when growing fast, are making bone, muscle and nerves all the time, and require certain materials to make them.

" Growth " Foods are mostly found in the curd of milk, lean meat, fish and eggs, and also in wholemeal bread, cheese, peas and beans, which may be given to older children.

" Growth " Foods also include those which contain various salts to make bones, and also others containing some mysterious, unseen qualities which have an enormous effect on healthy development and the lack of which often produces stunted, listless, rickety or unhealthy children.

These latter substances are known as **" Vitamins "** and one of them is very abundant in animal fat, and therefore in the yoke of eggs, fresh cream and butter, fresh beef suet or fat meat, but **not** in olive oil or margarine which consist of vegetable fats. The value of cod liver oil is largely due to the large quantity of this Vitamin which it contains, but should only be given if the other animal fats as mentioned above cannot be obtained.

The other Vitamins so necessary for growth are found in fresh fruit and vegetables. Until the latter can be digested in bulk the contained Vitamins can be given by pressing out the juice of fruits such as lemons, oranges or tomatoes, or equally good the juice that can be pressed out of the centre of a turnip. If sour, a little sugar and water can be added.

Fruit is often considered a luxury for children, but should rather be looked upon as a daily necessity for healthy growth and either grapes, apples, oranges or tomatoes can generally be obtained cheaply. It is a good plan, after a substantial meal of say stew and dumplings and vegetables, to give older children uncooked fruit for the pudding course.

Green vegetables contain Vitamins as well as salts for bone making; they should be cooked in soups and broths rather than in water, as the salts are then retained instead of being thrown away. Lettuce, mustard and cress and watercress, when they can be digested uncooked, are good, but must be carefully washed. For children of school age liver well stewed is a valuable "growth" food.

It will thus be seen that "**Growth**" Foods include those which, a few years ago, were looked upon as non-essential, but are now known to be of vital importance. "**Growth**" Foods include also "**Secretion**" Foods.

"**Warmth**" Foods and "**Activity**" Foods are often grouped together as "**Fuel**" Foods because they are like coal in an engine which burns and produces heat and power.

"**Fuel**" **Foods** consist of (1) "Starchy" Foods; (2) Sugar; (3) "Fat" Foods.

"**Starchy**" **Foods** are flour, bread, potatoes, rice, oatmeal, barley, tapioca, semolina, bananas, &c. Now there is no starch in mother's milk or in cow's milk or in any pure dried milk, and baby obtains all his warmth and power for movement from the **sugar** which they contain. At about seven months old when his digestion begins to grow stronger, he becomes gradually able to use starch.

What happens is this: all the starch we eat is turned into sugar by our digestive juices, and as starchy foods are much cheaper than sugar it is really wasteful for adults and older children to take much sugar. Up till about two years old children cannot digest much starch and thus they require some extra sugar, but older ones with good appetites for bread, potatoes, &c., should not have many sweets or sugar with their puddings, &c. It either makes them unhealthily fat or upsets their digestion in some way. Pennies spent on fruit would do much more good than if spent on sweets.

"Fat" Foods.—These are most important **"Fuel" Foods.** They consist of dairy cream, the yoke of egg, butter, dripping, suet, fat meat, herring and margarine. They are particularly valuable for active toddlers who cannot digest starch very readily, and also for all children in the winter when they need to make more heat to keep up their body temperature.

Water.—Besides all these foods for the different needs of the body it is important that plenty of **water** be taken. It is necessary for digestion and also for the **secretions** of the body. Of course there is water in soups, milk, &c., but a child should be encouraged to drink water the first thing in the morning and, when two or three years old, the last thing at night also. It is better not to drink much at meals but about half-an-hour before them. When on ordinary diet about one pint of water a day is not too much. Less is required when part of the diet consists of milk to drink and more is required in hot weather. **Alcohol** in any form is most injurious, except in an emergency, when ordered by a doctor.

Quantity.—It is very difficult to give precise rules as regards the quantity of food to be given. To give too much is nearly as bad as to give too little, although some children require more and some less than others of the same age. A general idea of the amount at certain ages will be found in the diet sheets (pages 13 to 16). The more active the child and the more exercise he takes the more food is needed, especially of "Fuel" Food, because he burns more up. This is also true of children who remain out of doors all day. Those who are quiet, inactive, ill or delicate require less "Fuel" Food and should never be "stuffed."

Combinations of Foods.—Sameness in the diet is bad, variety and change are good. A diet must not be one-sided; it should consist of a reasonable combination of "Growth" Foods, of "Starchy" Foods, and of "Fat" Foods, taking care that the "Vitamin" Foods are not forgotten.

Digestibility.—Age is not the only consideration, as some children, of two or three years old, have not learnt to masticate sufficiently, and swallow foods whole. Vegetables such as celery, beetroot, peas, beans, carrots, &c., must be thoroughly cooked and mashed for young children. Fruits such as plums, currants, raisins, figs, and even raw apples, will often prove indigestible, and may cause colic and diarrhœa. Mothers should examine the stools or vomit of children to find out what has been indigestible, remembering that the simplest food if swallowed whole may give trouble. Cheese should be grated when first tried.

As a general rule give fresh foods as much as possible, not tinned or bottled, and cook them simply without too much fat.

Foods that are Bad for Young Children.—Pork and eels; new bread, muffins, new potatoes, skins of baked potatoes; pickles,

vinegar, sauces, tea and coffee ; fruits with seeds, also nuts unless grated. Fruit which is overripe is very harmful.

Parents will now be able to understand **why** certain foods are so important and will be able to select those with the best health-value for money laid out.

They will notice, for example, that eggs are at once a " Growth " Food, a " Fuel " Food, and also contain a valuable " Vitamin," so that they serve three purposes at once. Dried eggs and eggs which are pickled when plentiful, are most valuable in winter and are not expensive.

Care of Food.—Much illness is caused by careless storage of food. It is very easily contaminated by flies, dust and dirt. Any remains should be quickly removed after meals, put on clean plates and well covered. Improvised safes made from a margarine box and a sheet of perforated zinc are most useful, or even a clean cardboard hat box and a large square of butter muslin thrown over it and frequently washed is efficient. Milk, meat, and fish need special care, but **any** food may be poisoned by flies.

No child over a year should have more than three meals, with perhaps a drink of milk or soup at bedtime till about eighteen months old. No bread and butter or biscuits should ever be given at bedtime. A child should go to sleep with a clean mouth and an empty stomach, and a strict rule should be made forbidding " pieces " or sweets then or between meals.

The three meals, breakfast, dinner and supper, should be as evenly spaced as possible, the latter being not too near bedtime but not too far away.

Diet Sheets for Six Months and onwards.

EXPLANATIONS.

Methods of Introducing a more Varied Diet to Breast-fed and Bottle-fed Infants.

A careful study of the following diet sheets will show the way in which new foods can be introduced into baby's diet as he gradually becomes able to deal with them. The key-word for the period is "gradual." There should be no sudden changes.

Thus at **six months** a crust (about 3 in. square by ¼ in. thick) may be held for the child to suck before feeds once or twice in the day. At **seven months** the crust (twice baked bread or toast may now be tried) may be lightly buttered, or dipped into the yoke of an egg, but not more than ½ a teaspoonful of butter or half the yoke of an egg should be used in the day at first. Broth, or a small quantity of red gravy from underdone meat, is a valuable addition to the midday feed. From this time less water can be given with the milk, as it is given in other ways, e.g., in fruit and vegetables and between meals.

Milk is a food, not simply a drink, as so many people seem to think. It is a valuable "Growth" Food, and it is imperative to remember that if the amounts of milk ordered in the diet sheets are not given, it is necessary to make up with some other "growth" food such as fish, egg or lean bacon, or the child's allowance of growth-building materials will be insufficient.

6—7 Months.

6 A.M.	10 A.M.	DINNER, 2 P.M.	6 P.M.	10 P.M.
Breast or Milk mixture, 6–7 ounces.	Breast or Milk Mixture, 6–7 ozs. Crust, Butter, a trace.	Breast or Milk mixture, 6–7 ozs. Broth 2 ozs., or Red gravy, ½–1 oz. (given alone or with feed).	Breast or Milk mixture, 6–7 ozs. Crust, butter, a trace.	Breast or Milk mixture, 6–7 ozs.

Fruit Juice (orange by preference) first thing in the morning, or between feeds.

8 Months.

6 A.M.	10 A.M.	DINNER, 2 P.M.	6 P.M.	10 P.M.
Breast or Milk mixture, 7–8 ozs.*	Breast or Milk mixture 7–8 ozs. Crust or rusk, ½ oz. Butter, ⅛ oz. Yoke of egg, ¼ oz. (in feed or lightly boiled).	Strained vegetable broth, 2 ozs., or Red gravy, ½ oz. Crust or twice baked bread, ½ oz. Butter, ⅛ oz. Milk, 4 ozs. (alone or given with broth).	Breast and Crust, ¼ oz. or Milk mixture with groats or baked flour, ¼ oz.	Breast or Milk mixture, 7–8 ozs.

*Some of the water may be omitted.

9 Months.—Same diet, except Dinner must be rather larger, and a few teaspoonsful of stewed vegetable or baked apple pulp added.

10 Months.

6 A.M.	8 A.M.	12 P.M.	4 P.M.	8 P.M.
Orange Juice, ¼ oz. Sugar, ⅛ oz. with water.	Milk, 5–6 ozs. Sugar, ⅛ oz. Toast or crust, 1 oz. Butter, dripping, or bacon fat, ¼ oz.	Gravy, 1 oz., or Broth, 2 ozs. Potatoes, ½ oz. Vegetable marrow or cauliflower, ½ oz., or Fish pudding, 2 ozs. Bread, ½ oz. Milk, 5–6 ozs. Sugar, ⅛ oz.	Milk 5–6 ozs. Sugar, ⅛ oz. Bread or crust, 1 oz. Butter, ¼ oz. Stewed apple, 1 oz. or trace jam, honey or treacle.	Milk 5–6 ozs. Sugar, ⅛ oz.

One Year.

BREAKFAST.	DINNER.	TEA.	SUPPER.
Milk, 6–8 ozs. Sugar, ¼ oz. Bread, Toast, Rusk — Singly or combined, 1–1½ ozs. Butter, Dripping, Bacon fat, &c. — Singly or combined, ¼ oz. Jam (without seeds, pips, or skins), Jelly, Treacle, Honey — ¼–½ oz.	Fish, 1 oz., stewed in milk (2 ozs.), or Egg, 1 oz., or Tripe stewed in milk, ¾ oz. (milk, 2 ozs.). Potatoes mashed with ⅛ oz. fat, 1–2 ozs. Vegetables, cauliflower, vegetable marrow, or Jerusalem artichoke, 1 oz. Milk pudding, 2 ozs., or custard, baked or boiled. Stewed prunes or baked apple, 1 oz. Bread, 1 oz. Water to drink.	Milk, 6–8 ozs. Sugar, ¼ oz. Bread, Toast, Rusk, Plain, Madeira Cake*, Oatmeal Biscuits — Singly or combined, 1–1½ ozs. Butter, ¼ oz. Jelly, treacle, or jam without seeds, pips, or skins, ¼–½ oz.	Broth (vegetable) 3–4 ozs., or Milk, 6 ozs.

*Home-made.

18 Months.

*BREAKFAST.	DINNER.	TEA.	SUPPER.
Milk, 8 ozs. Sugar, ¼ oz. Cocoa, ⅛ oz.	Fish, steamed, 1½ ozs. (and served with white sauce).	Milk, 8 ozs. Sugar, ¼ oz.	
Bread, toast, or rusk, 1½ ozs.	Potatoes, steamed and mashed with butter, ¼ oz.–1½ ozs.	Bread / Toast / Rusk / Sponge or Madeira cake / Oatmeal biscuits — 1½ ozs.	
Butter / Dripping / Bacon fat — ¼ oz.	Vegetables, carrots, turnips, boiled Spanish onions, 1½ ozs.		NONE.
	Sponge pudding, 2 ozs., or Spongecake.		A hot drink if necessary.
Jam / Jelly / Treacle / Honey — ¼ oz.	Stewed prunes / Apples / Dates / Apricots — 1½ ozs. (well stewed and skins removed).	Butter or margarine, ¼ oz.	
Watercress or lettuce in season.	Bread, 1 oz.	Jelly, jam or treacle, ½ oz.	
	Water to drink.		

SUGGESTED ALTERNATIVE DINNER MENUS

(Principal Dishes only given), for EIGHTEEN MONTHS.

SUNDAY .. Roast beef or mutton, cut up in small pieces, potatoes and vegetables.
Mould or Junket and fruit jelly or stewed fruit.

MONDAY .. Fish stewed in milk, mashed potatoes and vegetables.
Stewed apple and custard, or batter pudding.

TUESDAY .. Egg, boiled or poached, potatoes and vegetables.
Suet pudding with jam.

WEDNESDAY.. Stewed mutton, cut up in small pieces, potatoes and vegetables.
Milk pudding or junket, stewed fruit.

THURSDAY .. Fish, steamed and served with white sauce, potatoes and vegetables.
Sponge pudding or sponge cake, stewed fruit.

FRIDAY .. One egg boiled, or tripe stewed in milk, potatoes and vegetables.
Milk pudding, baked apple, grated cheese (with bread).

SATURDAY .. Vegetable soup (lentil, pea, artichoke, tomato), potatoes and vegetables.
Suet pudding, syrup or treacle.

2—5 Years.

BREAKFAST.	DINNER.	TEA-SUPPER.
Milk, 8–12 ozs. Sugar, ¼ oz.	Stewed mutton or rabbit or underdone beef, 2 ozs.	Milk, 8–12 ozs. Sugar, ¼ oz.
Cocoa / Chocolate — ¼ oz.	Potatoes, mashed (with fat, ½ oz.), 1–2 ozs.	Cocoa / Chocolate — ½ oz.
Bread / Toast / Oatcake — Singly or combined, 1½–2½ ozs.	Cabbage, turnip tops, Brussels sprouts, or other green vegetable, 1½–2 ozs.	Bread / Toast / Biscuit / Plain cake / Shortbread / Oatcake — Singly or combined, 1½–2½ ozs.
Butter / Dripping / Bacon fat — Singly or combined, ¼ oz.	Milk pudding, tapioca, rice, sago, cornflour, &c., 2–3 ozs.	Butter / Dripping — ¼ oz.
Jam / Jelly / Treacle — Singly or combined, ¼–½ oz. or Stewed fruit, 1–1½ ozs.	Stewed fruit, or baked apple and syrup, 1–2 ozs. Bread, 1½ ozs. Water to drink.	Jam / Jelly / Treacle — ¼–½ oz. or Stewed fruit, 1–1½ ozs.

SUGGESTED ALTERNATIVE DINNER MENUS

(Principal dishes only given) for 2–5 YEARS.

SUNDAY .. Roast Meat, potatoes and vegetables.
Batter pudding, stewed fruit.

MONDAY .. Fish fried (plaice or lemon sole), potatoes and vegetables.
Suet, apple pudding.

TUESDAY .. Boiled Mutton and broth or gravy, potatoes and vegetables, or Irish stew or hotpot.
Milk pudding, stewed fruit.

WEDNESDAY .. Tripe stewed in milk, or fish stewed in milk, or fish pie, potatoes and vegetables.
Milk pudding made with egg, or custard.

THURSDAY .. Stewed mutton, rabbit or liver, potatoes and vegetables.
Mould and fruit jelly, or chocolate mould, or bread and butter pudding (with raisins or cherries).

FRIDAY .. Boiled, poached or scrambled egg, or omelette, potatoes and vegetables.
Suet pudding with jam or treacle.

SATURDAY .. Vegetable soup, macaroni or cauliflower with cheese, potatoes and vegetables.
Stewed fruit.

Why Does Baby Cry?

He may be crying because

1. He may be uncomfortable and wet and need "changing." It is always best to "change" baby after a feed rather than before, as this will probably ensure that he is dry until the next feed is due. A pin may be sticking into him or he may be lying on a button or in an uncomfortable position.

2. He may have colic, due to having swallowed wind with his feed. He should be fed on his mother's knee and not in his cot and raised into an upright position so that he breaks the wind before being put to bed. Over-feeding will give him colic too and must be avoided.

3. He may be hungry, in which case the cry is a healthy one and usually occurs just before the next feed is due. This does not mean that he should be fed any sooner, but may mean, together with a stationary weight, that he needs a little more food at each feed.

4. He may be thirsty. A baby often needs a little fluid in between feeding times, and may be given one or two teaspoonsful of water that has been boiled and allowed to cool.

5. He may be too tightly clad, or too warmly clad, and his cry is merely an indication of his general discomfort. There should be no tight napkins or tapes round his body, or gathers round his neck, and he should not perspire. There should be plenty of room to stretch his legs when he wakes. Stuffy hot rooms will upset him and he cannot stand bad atmosphere as well as grown-ups. His cot should not be close to his parents' bed, but where the air is fresh. He should not sleep in the living-room in the day, but in the open air. This will help to prevent him catching cold.

6. He may be spoilt. It is indeed a great mistake for a mother to make, to pick up her baby whenever he cries. He must be taught to lie quietly by himself. Much of his time in the first few months of life is spent in sleeping, and if he does not sleep there is something wrong with his management. All babies require "mothering," which includes being nursed in his mother's arms for a portion of each day, but a healthy, normal baby should not cry when replaced in his cot and scream until picked up again. If after ascertaining that he is comfortable and clean and well fed, a mother continues to snatch up her infant at the slightest whimper day or night, she is heaping up trouble for herself for which she will have to pay in full later.

Exercise Baby's Muscles and Senses.

If you want a baby to thrive, to be hungry and vigorous, you must **exercise** the muscles and senses, besides giving him rest and food. Do not jog, or shake, or slap; handle wisely, change the position in the cot, rub the limbs and stomach carefully. Encourage vigorous **sucking** both in breast and bottle feeding; from the first the baby must learn to earn his living. If he is lazy he will be greedy. This sucking exercise is necessary both to get the free and proper supply of milk from the breast and for the baby's digestion and general vigour and growth. The lazy way of filling the stomach without real effort and the habit of greedily gulping down the milk must be prevented by management, so that each feeding takes 15 minutes of **good jaw action.** This develops the jaws and promotes a good circulation of the blood; it also develops the muscles of the body; it makes "teething" easier, it helps the brain to grow, and sets up a habit of sleep after feeding. The baby is satisfied and good tempered, and we are thus able to lengthen the intervals between the feeds. **Effort and self-control** should therefore be the first good habits to teach baby: they bring a great reward at once, with increasing benefits in the future, to body and mind. Remember also that the regular bath is not only for cleanliness, but an important means of exercise.

Encourage baby to **kick** and grasp and wave his arms. He wants exercise, and should be encouraged and trained; 15 minutes for free use of his limbs and senses in play should be arranged for twice a day. A baby should be encouraged to crawl long before he begins to walk, even if its clothes will become dirtier in consequence. **Play** should be gentle, without shock and excitement, and rather a training and direction of his own efforts to perform some definite action. Be sympathetic to baby, but control him too. Don't let him get over-excited, and don't be indifferent or neglectful towards him. The baby should not be constantly teased to play and show off his tricks. Try and feed his interest in things through the senses of touch, sight and hearing—little by little; encourage the craving to use and feel the power of his limbs, to "find himself," and to do little things, *e.g.*, to hold up his head, to reach for and handle things, to sit up, to crawl or walk up the mother's lap, to stand with support, &c. Always let him do as much as he can for himself. Even **crying** may be only a healthy sign of want of air and exercise; at other times it means fear, or pain or discomfort, which is not likely to be due to hunger if baby is properly fed; and if food is then given it makes things worse. Think and find out what is wrong; be patient, don't fuss, don't "spoil."

A daily **outing** in the open air is important, but it will not make up for stuffy air at home. A child will not thrive without a daily outing, and to go out is equally necessary for a nursing mother ; a proper allowance is at least three hours in the "open" every day.

Remember that baby is easily made " nervous " and subject to fear : he needs **" mothering,"** the gentlest loving care, with firmness. Shield him from loud, harsh noises, from sudden shocks, from terrifying sights ; you do not want to make him afraid of being left in the dark, so try to train him to appreciate darkness, and be ready at hand in case he should require you.

Infantile Diarrhœa.

Infantile Diarrhœa is a very serious complaint. It is set up by irritating material, whether germs or decomposing food, which is giving rise to trouble in the child's bowel.

In the first instance Diarrhœa is Nature's way of getting rid of harmful material, but it is often accompanied by sickness and fevers, and in severe cases the baby becomes collapsed and death frequently follows.

During the hot summer of 1921, 12,000 babies died from this cause alone.

Mothers, you must be on your guard. At the first signs of vomiting or Diarrhœa seek medical advice. If you have not a family doctor, go to the Infant Welfare doctor or the Medical Officer of Health.

Never Wean a Breast-Fed baby during the hot weather.

Breast-fed babies rarely get Diarrhœa, since their food is clean and in suitable quantity.

The special danger is to

BOTTLE BABIES.

(1) Babies, like grown-up people, require less food in the hot weather, especially less fatty food, and are easily upset if given their usual amount.

(2) Cow's milk as obtained from the dairy, or condensed milk which has been standing open, is neither clean nor fresh in hot weather. All milk should be boiled, or better still, dried milk (kept in a closed tin) may be used instead. Bottles and teats

should be cleansed with special care after each feed, and boiled frequently, then kept covered or under boiled water until next required. Keep down flies. They carry germs from refuse and dirty ashpits to baby's food.

The following **rules,** if followed carefully, will help to keep baby well during the hot weather :—

(1) Plenty of cold **boiled** water to drink during the day, and during the night if he awakes.

(2) As little clothing as possible—one layer is probably enough.

(3) Keep baby's head shaded from the sun.

(4) Give him plenty of fresh air night and day. Bedroom door and windows always wide open (but baby should not be in a **direct** draught).

(5) Never **press** food. Baby will probably take less well than usual. He requires less food in hot weather than in cold.

(6) Give a little fresh fruit juice every day.

(7) If you are not nursing baby yourself, boil all milk before it is used, cool it quickly and keep it covered.

(8) Avoid " dummies." They fall on the floor and carry germs from the floor to baby's mouth.

TREATMENT and ACTION to be taken.

If baby's stools are seen to be in any way loose, watery, or frequent during hot weather, whether green or yellow in colour, and especially if there is vomiting also, you should consult a doctor.

A single dose of castor oil, one teaspoonful, may be given immediately, and food will require to be withheld for a period, in all probability for about twelve hours.

Give as much **boiled water,** however, as the child will take.

If he takes badly, a pinch of salt may be put into the water and will help to make him more thirsty, or albumen or egg water (see page 37) may be given as an alternative.

On no account put sugar into the water.

To PREVENT the SPREAD of INFECTION.

(1) Your hands should be washed frequently, especially before preparation of food.

(2) All soiled napkins should be put immediately under a disinfectant solution, until such time as they can be washed.

(3) All napkins should be **boiled,** as well as washed.

Hints on the Management of Children from 1—5.

CLOTHING.

Clothing should be warm, light and loose. The best clothing consists of a knitted vest or combination garment for both sexes, closed flannel knickers with a washable lining, and a kilted skirt for a girl, and pants and knickers for a boy, with a knitted jersey, long stockings and strong boots for both. Instead of the jersey and skirt, girls can wear a long-sleeved loose frock, if preferred. No stays or corsets should be worn, as these weaken the chest and back and interfere with breathing; a bodice of cotton or flannel may take the place of stays. Do not expose bare arms or legs to the wet and cold, and avoid wet and thin boots. Clogs are good, because they keep the feet dry, and are cheap and wear well. Children with " chaps " or chilblains should wear warm gloves out of doors.

All flannelette clothing is dangerous; many deaths occur in England every year through this material catching fire; the use of a fire-guard would prevent most of these accidents.

Collars and combs made of celluloid are highly inflammable.

SLEEP.

No young child should have less than twelve hours undisturbed sleep out of the twenty-four. Absolute regularity is desirable. The want of sufficient sleep is a frequent cause of nervous diseases and brain troubles, and later on of " dullness " at school. The sleeping room should be quiet and well ventilated. A child from 1-5 should still be put to bed for at least an hour in the day, even if it does not sleep. Do not let summertime interfere with the length of time the child should sleep.

EXERCISE.

Active exercise is essential for the growth of children. Do not cramp free movement by keeping children too long on a chair, or in a perambulator or mailcart. If properly clothed (see " Clothing," page 5) let the child play on a rug on the floor, protected from draughts; or better, on the dry grass in the park, if the weather be favourable.

Do not carry the child always on the same arm, nor allow it to sit or lie in the same position for a long period.

THE CARE OF THE EYES.

If a child squints, blinks, screws up its eyes, frowns, makes grimaces, has discharge from the eyes or complains of continual headaches, take it to an eye surgeon or hospital, not to a spectacle maker.

DISCIPLINE.

The good mother makes her child obey her without question, never goes back from her word, or argues the point. Do not "wheedle" or "nag," or let the child think you are in doubt, for even the youngest baby will take advantage of a weak mother. Children are highly imitative; therefore, do not deceive them or tell a lie, or they will do the same to you. The strictest parents are the best beloved if only they are just. Do not frighten children into obedience by foolish tales of "bogies," or by threatening to tell the doctor or fetch the policeman; and do not punish them by boxing their ears or by putting them in the dark, as the child may dread the hour of bedtime for years afterwards.

Character Training.

It is important to feed and clothe children in the best possible way. But it is much more important to train their **characters** in the best way.

Why do we especially want to train children well?

1. To build up in them strong and noble characters.
2. To make them fit to face life.

Mothers should begin to train their babies as **early** as possible. No baby is too young to know whether he can manage his mother, or whether his mother can manage him. Teach a baby *at once* that he will not get all he wants because he cries for it. A little crying will not hurt him, but to give him everything he cries for will hurt him very much. It will make his character weak, undisciplined, self-willed, uncontrolled.

The child's mind grows with his body, and as the one needs right conditions, so does the other, or it will be stunted.

How can we train and educate the mind and thus influence the character? To do this, we should interfere as little as possible with Nature's methods. A baby has great power of **concentration**; he will look steadily at one thing for a long time, he will make a

movement over and over again until he can control it. He should be left **undisturbed ;** he should not be spoken to only for the sake of seeing him smile. Excepting during his regular occupations—his meals, sleep, and going out—he should not be disturbed when he is absorbed. When awake in his cot he should be able to see what is going on around him. This will always be enough to occupy him. As he gets older he should be taught to **occupy himself,** not to want constant attention from his mother. He will be much happier and give less trouble if he can occupy himself, but he will never learn to do it if he is taken up and amused whenever he cries. To help him to gain a habit of self-occupation is to help to educate his mind and character.

A baby's mental business is to learn all he can about the world in which he lives, and he does not like to be interrupted whilst learning. Do not speak to a child unnecessarily when he is absorbed and good.

We learn and grow by trying and succeeding. Therefore, unless it is hurtful to himself or to others, do not prevent a child from doing what he can for himself, thus teaching him **self-reliance.**

Too often, out of mistaken kindness, people thwart a child when he tries, and *enjoys* trying, to attain his end by himself.

Do not **indulge** children. It makes them soft and selfish.

Do not **nag** or be harsh to them. You may make them cowardly and deceitful.

Always be gentle, but always be **firm.**

Let your yes be yes, your no, no. Never shake children or box their ears or frighten them.

Moral education helps children to learn **self-control ;** and remember you want to make them fit to go out into life, where they will need a great deal of self-control, where they will not find everything made easy for them, where they will not be spoilt and get everything they want. **Regularity** in good habits when children are small, is a very important part of moral education, because through good habits a child learns to make a right choice, to choose the good and refuse the evil.

Let him hear only **kind** words and **pleasant** voices. Let that to which he is accustomed be right, that to which he is unaccustomed be wrong. If he is never told to do unreasonable things, he will see that **obedience** to the reasonable actions he is asked to do is right ; and he will be more likely to refuse wrong when it comes his way.

Some day he will certainly have to choose between right and wrong. He can only choose rightly if he knows the meaning of right-doing. And whilst he is small this knowledge comes through **good habits** and **trust** in the kindness of those he loves best. The first time he makes a good choice he shows control over his will.

Therefore teach children from the very beginning :—

1. How to be obedient.
2. How to be self-controlled.
3. How to be unselfish.
4. How to be pure.
5. How to be truthful.

Teach them to be **unselfish** by encouraging them to do things for you and for others ; by making them think of other people first, not of themselves first. Do not always slave for them, but show them how they can help you. A mother often makes her children selfish by doing everything for them and saving them trouble. That mother is not really a good mother. A good mother thinks chiefly of what is *best* for her children's characters, not of what is easiest and pleasantest for them.

To cultivate and practise good habits, bodily, mental, and moral, is to build up a great and good character ; and the famous old saying bears this out :—

" Sow an action, you reap a habit.
Sow a habit, you reap a character."

Therefore teach your children to do **right actions** over and over again, until the right actions become habits, and the habits are built into a character.

The Care of the Teeth.

Good teeth and a clean mouth are essential to good health.

Three things are requisite for good teeth :—

1. Good Blood.
2. Jaw Exercise.
3. Cleanliness.

Good Blood can be secured by clean, healthy living and proper food. Alcohol and drugs, excess of tea and sugar, should be avoided. A very common cause of bad blood is constipation. Enough fruit and vegetables should be eaten and all food thoroughly chewed.

Jaw Exercise.—The first essential is breast-feeding. When the child is weaned and starchy food is started, crusts and rusks must be used, and pap avoided. Food that requires chewing must be given, and care taken that it is thoroughly chewed. Sweets, sweet biscuits and chocolate must not be eaten between meals. Chewing at chicken and chop bones is useful.

Cleanliness.—Clean teeth are less liable to decay. Decay always starts at some external part of the tooth, where the enamel has been chipped off, or softened by acids. Acids are produced when soft food, such as bread, biscuits or sweets, becomes lodged between teeth or in crevices, and remains there long enough to breed germs and become sour.

Teeth become loosened and decayed when inflammation or an abscess forms round their roots ; this is apt to occur when food collects at the gum edges and becomes decomposed. Inflammation round the teeth is often called **pyorrhœa,** and is the cause of many troubles through the swallowing of poison and its entrance into the blood.

How to Clean the Teeth.—The natural method of cleaning teeth is to chew hard acid fruit, such as an apple. This mechanically removes slime and by causing a copious flow of saliva helps to dissolve any other food that may have been lodging on the teeth. If soft starchy foods are eaten at the end of a meal, brushing must be resorted to. In any case there should be a thorough cleansing the last thing at night. Use a small, stiff, straight brush, with water. Finely ground (prepared) chalk, salt or soap are useful, because they increase the cleansing powers of the brush. Avoid expensive advertised powders, pastes and washes. All surfaces of the teeth and gums should be brushed, the outer, the inner, and the grinding surfaces. The brush should be used for the inner and outer surfaces with an **upward** movement for the lower teeth, and a **downward** movement for the upper teeth, in order to clean between them, and the gum edges. The grinding surfaces should be scrubbed with a to-and-fro movement. The palate and tongue should also be cleaned. Such cleaning will not make the gums bleed, unless there is any disease with inflammation of the gums.

If there is decay of the teeth or pyorrhœa of the gums, a qualified dentist should be consulted at once. It is foolish to wait till there is pain. If the child's first teeth are neglected the general health is bound to suffer, because the food cannot be chewed properly, and indigestion follows : toothache makes the child fretful and prevents sleep, poisons get into the blood, and the growth of the second set of teeth is seriously interfered with.

It is important to remember that the first tooth of the second set to be cut is the first permanent molar, or grinding tooth. It is cut about the age of six, and appears behind the milk molars. If

these are decayed, the new first permanent molars are extremely likely to be infected with decay from them. The second teeth, called pre-molars, which replace the milk molars, are often seriously damaged by abscesses caused by the decay of the first teeth.

A dirty mouth damages health much more than a toothless mouth.

There are many bad habits which help to damage the teeth and jaws, such as the use of dummies, thumb and tongue sucking, lip sucking, thread biting, mouth breathing. This last is often associated with the presence of enlarged tonsils and adenoids. In this case a doctor should be consulted. (See also pages 28 to 30.)

If you take care of your children's teeth it will help them to grow up strong and healthy.

Common Ailments.

Diarrhœa generally occurs in those who are habitually badly fed, and most frequently during the hot weather, or after sudden changes of temperature ; it is made worse by cold feet and chills to the belly from unsuitable clothing, also by unripe or over-ripe fruit and unclean milk.

The child soon recovers if all food be stopped at once, and it is kept perfectly quiet and warm in bed, and given nothing but cold water which has been boiled. Milk, even in small quantities, makes the child worse. Don't go to the chemist, but send for the doctor at once.

Constipation is often due to the thoughtless habit of administering powders, castor oil, and other opening medicines without the doctor's orders ; or to want of water to drink ; or again, to the want of green vegetables, sound fruit, and fats, such as dripping, margarine and butter.

This troublesome habit would be avoided if, from early infancy onwards, the child were taught to " sit down " at the same hour every day, even if occasionally no " action " resulted ; kneading of the belly with the oiled hand (as if making pastry), for some five or ten minutes will often move the sluggish bowels. The habit of constipation is not to be cured by medicine, therefore do not employ powders from the chemist.

Bed-Wetting : Like constipation, this is often a habit, and due to neglect of teaching the regular use of the chamber from earliest infancy. It is aggravated by excess of unsuitable food, by too little exercise, and by sleeping on the back.

The doctor should always be consulted, for the trouble is never removed by threats or punishment. A mistake frequently made is to deprive the child of water, but this only makes matters worse. It is better to allow an ample supply of water during the early part of the day.

Thrush : Thrush is a condition generally due to dirt, or to an unhealthy condition of the mouth sometimes caused by rough handling in cleaning the mouth out with a rag wound round the finger. Its presence is shown by the formation of a mould on the tongue, cheeks, palate or gums, causing white spots which can be peeled off, leaving a raw surface. Thrush must not be regarded too lightly, for it is generally accompanied by disturbance of the stomach and bowel. To cure it, see that the bottle and teat are absolutely clean, or in the case of breast-feeding that the nipples are washed before and after each feed. In case of bottle-feeding, it is sometimes as well to weaken the feed until you get advice from your doctor. Burn the dummy and wipe the tongue over with cotton wool or lint dipped in glycerine and borax.

Rickets is due to the want of proper feeding and sufficient fresh air, sunshine, exercise and sleep. Its presence may be suspected if the child sweats about the head, especially at night, is late in walking and cutting its teeth, and has flabby limbs, large joints, pot-belly, prominent navel, and is fretful, nervous, and sleeps badly. Don't wait until the child becomes bandy-legged or knock-kneed before taking it to the doctor.

Earache : The baby who suffers from earache often presses the side of the head against the mother's breast and cries loudly. It sometimes wakes with a start and shakes its head restlessly. Earache is not uncommon during teething, but much harm may be done if the *doctor is not sent for as soon as possible.* In order to relieve the pain while the doctor is coming, a hot linseed poultice may be put behind the ear, and kept in place by a handkerchief.

Sore Buttocks : Serious cases of soreness of the buttocks are nearly always due to wrong feeding, which causes the motions to be irritating. These cases will be cured when the diet is put right by the doctor. If the child is artificially fed, it is a safe precaution to reduce the diet until the doctor has seen him. In order to avoid this trouble, attention should be paid to the following points :—

(*a*) The buttocks and parts should be carefully dried and powdered after bathing.

(*b*) The napkins, after being wet or soiled, should never be dried and used again without washing. They should be washed with pure soap, and without soda, and well rinsed. Twice a week the napkins should be boiled.

(*c*) The napkins should be frequently examined and changed if wet, otherwise the baby may get chilled.

(*d*) The buttocks and parts should be sponged and well dried after each movement of the bowels ; they may also be smeared with hazeline cream.

(*e*) The child should be taught to use a utensil at regular times from its earliest infancy.

Prickly Heat and Nettlerash : Babies may suffer from attacks of nettlerash. If this occurs, the baby's food must be reconsidered and care taken that the clothing next the skin does not irritate it.

Ringworm is conveyed in the same way as head lice, that is, by sleeping in an infected bed, or wearing an infected cap, or by a brush ; it often takes the form of scurfy or bald patches. It is easily cured in its early stages, but may be very obstinate if neglected. Consult the doctor at once.

Worms specially affect unhealthy children, and the trouble is kept up by carrying the eggs on the fingers from the buttocks to the mouth ; therefore extreme cleanliness of the body, clothing and bedding is necessary, and medical treatment is called for.

Itch.—This is due to an insect which burrows under the skin, and is generally conveyed from the hand or nails to another part of the body. The burrows are usually to be found between the fingers and on the wrists ; itching, especially at night, is often very distressing, and may spread to any part of the body. The scourge may be removed effectually by the free use of sulphur ointment and disinfectant baths, to be obtained free at the public baths. Enquiry should also be made of the sanitary authority at the Public Health Offices, as to where clothing may be disinfected.

Adenoids.

WHAT ARE ADENOIDS ?

Adenoids are little soft growths at the back of the nose composed of the same material as that of the tonsils, known as " lymphatic tissue." Just as tonsils sometimes get enlarged so do the adenoids ; and usually they get enlarged at the same time and for the same reasons.

Adenoids, if very small, can do little harm, but if they become large they may block up the passage between the back of the nose and throat. This prevents the proper breathing of the child through the nose ; and so the child has to keep the mouth open continually in order to breathe through it, which is unnatural and harmful.

WHY DO ADENOIDS GROW ?

This question may be answered by asking another. What purpose do they serve ? One of the chief duties of all lymphatic tissue is to kill the germs of disease and to protect the body from these dangerous invaders. The air always contains many germs, including those which cause common colds, catarrhs, influenza and other diseases, and consequently, as the air passes over the moist and sticky surface of the inside lining of the nose and back of the throat, they are caught and retained in position. If the air is very impure and laden with much dust and microbes, a great deal of work will be imposed on the lymphatic tissue of which the nose and throat consist. At first the tonsils and adenoids will enlarge to enable them to do the heavy work they are called upon to perform, but if greatly overworked they will become unhealthy and diseased, so that they may have to be removed by operation.

WHAT HARM DO ADENOIDS DO ?

By obstructing breathing through the nose they may cause continual colds in the head with a running nose ; also mouth-breathing, dry mouth, bad teeth and a vacant expression.

By blocking or causing inflammation of the little tubes leading from the middle ear to the back of the nose there may follow deafness, earache, abscess, chronic discharge from the ear or mastoid abscess, which may be followed by inflammation of the brain (meningitis) or even abscess of the brain.

By preventing proper breathing into the lungs, and from inflammation spreading down the throat towards the bronchial tubes, there may arise cough, hoarseness, bronchitis, and contracted or "pigeon chest."

By constant swallowing of the secretion produced by inflammation from the back of the nose and throat the child may get flatulence, indigestion, or bowel trouble.

HOW CAN THE GROWTH OF ADENOIDS BE PREVENTED ?

The prevention of adenoids consists in the main in the prevention of common colds, influenza and other catarrhs of the nose and throat. These are best prevented by (*a*) keeping out of the way of infection, (*b*) keeping in good general health, and (*c*) keeping the nose and mouth in a healthy condition.

The first object is best ensured by good ventilation and cleanliness in the house and by living as much as possible in the open air ; the second by good dieting, attention to the bowels, and avoidance of overstrain ; the third by careful cleaning of the teeth and mouth, and a proper use of the handkerchief so that accumulations of discharges do not occur in the nose. Nose breathing should be encouraged by exercises and other means from infancy upwards.

In all cases in which, from whatever cause, there is obstruction to nose breathing the doctor must be consulted.

WHEN IS OPERATION NECESSARY ?

Operation can frequently be avoided if the directions mentioned in the previous paragraphs are carried out. Operation will become necessary if there be any ear trouble, constant colds accompanied by cough or attacks of bronchial catarrh, or if the child has to keep the mouth continually open in order to breathe.

As the result of operation a weak, delicate child may develop into a strong healthy adult.

Colds.

Colds are caught from other people just like measles. Babies often catch them from sleeping too near grown-up people, or by being taken into hot, stuffy rooms in which the air has been infected by people with colds. Frequent colds are a cause of large tonsils and adenoids, and large tonsils and adenoids make the catching of colds easier. Unhealthy children catch colds easily and suffer more severely. Bad feeding, wet feet, exposure to cold, want of fresh air and exercise, make children weak and unhealthy, and therefore increase their liability to catch colds. Neglected colds, especially in weak children, may turn to bronchitis or pneumonia.

BRONCHITIS AND PNEUMONIA.

If you do not want your child to have bronchitis or pneumonia :—

1. Do not let him sleep in the kitchen at any time. He must sleep out of doors or in the bedroom, with open windows.
2. Do not give him hot baths—tepid baths are more invigorating.
3. Do not feed him wrongly—the fat, heavy baby runs more risk than a slight, wiry one.
4. Do not blame " teething " for all the ailments that children get during this period.
5. Be wise about clothing. He should wear long-sleeved, knitted vests. Never let his feet and legs be bare in cold weather.
6. When bedtime arrives, baby should remain in his cot and not be taken to picture palaces or other places of amusement.
7. Babies with colds do not bear changes of temperature, such as a sudden removal from a hot to a cold room.

INFECTIOUS DISEASES AND THEIR DANGERS.

Measles.

IMPORTANT ADVICE TO FOSTER-PARENTS.

MEASLES is one of the most dangerous of all the diseases of children, and causes more deaths among them than scarlet fever, diphtheria, and typhoid added together.

HOW TO TELL WHEN A CHILD HAS CAUGHT MEASLES.

A child who has caught measles becomes feverish and restless, and the eyes are red and there is running from the nose, sneezing, and cough—**just as if the child had caught a "cold."** The **rash** appears three or four days afterwards; it consists of blotchy, red spots, which first come behind the ears and then spread over the face, arms, chest, and back, and then the legs.

If the child is kept in bed with plenty of air, the rash and cough usually disappear, and the child recovers in twelve or fourteen days. But for at least three weeks after the first appearance of the rash, the child will still be **infectious.**

Sore eyes and running ears sometimes follow measles, and may become chronic. A child in whom any such discharge continues may still be infectious. **Earache** is a warning of possibly serious trouble.

A long continued cough, debility and loss of appetite, should make one suspect tuberculosis.

As measles may cause life-long injury to health, **it is very unwise not to call in a doctor.** In every case the Medical Officer of Health should be informed of the illness. He may be able to supply assistance in nursing.

HOW THE CHILD SHOULD BE TREATED.

The child should be kept in bed, in a separate bed, and, if possible, in a separate room, until a week after the rash has gone; the **windows** should be kept wide **open** day and night in mild weather, and partially open day and night in cold weather. If it is cold with the windows wide open, there should be a **fire.** The child may be sheltered from draughts by a screen.

Fresh air and cleanliness are most important.

It is important to keep the child's **skin, eyes, and teeth** clean and the clothes worn in bed, as well as the sheets and pillow

cases, should be frequently changed and aired at the fire. Instructions may be obtained from the nurse how to wash the child and keep its nose, throat, and mouth properly cleansed.

On getting up, the child must be warmly clothed.

Light is an important disinfectant, and the **blinds** should be kept up. If the eyes are affected, see that the child does not face the light.

Plenty of **water** with a little lemon juice is the best thing for the thirst during the fever. Light and nourishing food should be given, such as milk, bread and butter, dry toast and butter, and also fruit, such as oranges, bananas.

HOW OTHER CHILDREN SHOULD BE PROTECTED.

You must remember :

(1) That measles is most infectious in the **first stage,** when the child seems only to be suffering from a " cold."

(2) That measles is so fatal to **children under five,** that they should never be taken into an infected house, and every precaution should be taken to prevent them from having the disease. It is not necessary that they should have it at any time. Therefore, when measles is about, no child with a cold, which may be the beginning of measles, should be allowed to go to an infant school and infect others.

(3) That you must not let a child with measles go to school, or into other houses, or into any public buildings or public conveyances, and you must not let other children come into your house during the time (four weeks) that it is infected.

As soon as a child attending an Elementary School gets measles, please inform the Head Teacher at once, and do not send any of the children to Infant School, or Sunday School, earlier than **three weeks** after the commencement of the last case in the household.

The children who have just had measles must not be sent to school before the end of **four weeks** from the commencement of their illness. The children who have had measles before, and who go to the Upper School, may continue to attend school, if they can be kept away from infection. In any case of doubt, the Medical Officer of Health should be consulted.

On recovery of the patient at the end of three or four weeks, the room requires a little simple **disinfection :**—Throw the windows and doors wide open and allow the fresh air to blow through the room for several hours, after which the child's body-linen and bed-linen should be washed in boiling water, and floors, window sills, and other wood-work and furniture should be washed with plenty of soap and water.

Whooping Cough.

WHOOPING COUGH is one of the most fatal diseases of children. It is also catching. Most deaths may be prevented by care.

WHAT WHOOPING COUGH IS.

1. When whooping cough is about, any child with a bad cough which **comes in fits,** and is **worse at night,** or ends in vomiting, should be suspected of having whooping cough. If there are a number of quick, short coughs followed by a deep drawn breath, you may be sure it is whooping cough.

2. It is infectious before the whoop begins, and should be treated as infectious as long as there is cough and expectoration (spit). Children, and especially **infants, may have whooping cough without any whooping.**

3. Young infants are specially liable to die of whooping cough. They should be carefully kept out of the way of infection. They should never be taken into a house where there is whooping cough.

HOW TO TREAT THE CHILD.

4. Most deaths are due to children being exposed to unhealthy conditions while suffering from whooping cough. Remember that **pure air** is very necessary. The air of a dirty stuffy room poisons the system, and is even more dangerous than a draught. The whole body, including arms and legs, should be **lightly and warmly clothed.**

5. It is advisable to **consult the doctor** in all cases, but especially—(1) when the patient is an infant; (2) when the fits of coughing are very frequent; (3) when the breathing is short and the child goes off his food.

When the cough is bad, the child should be **kept in bed** with the window wide open, the blind up, and the curtains drawn back. Light a fire in cold weather. The child may be protected from draught by a screen.

6. If there is much vomiting, **food** should be given frequently in small quantities (little and often), and the best time is just after a fit of coughing. Porridge, eggs, milk, and bread and butter are the best foods.

7. Children who have already been whooping for two weeks and are eating well, and seem quite well except for the cough, may spend their time **out of doors, if warmly clad,** but must not mix with other children.

HOW OTHER CHILDREN SHOULD BE PROTECTED.

8. Children suffering from whooping cough must be **kept from School** as long as the cough lasts, and in all cases for five weeks from the commencement of the illness. They must not go to Church, Sunday School, or any entertainment. They must not enter a **train, tram, or other public conveyance,** or a house where there are young children. No children should be allowed to visit a house where there is whooping cough.

9. Elementary school children living in a house where there is whooping cough **should not attend the Infant School,** nor should older children who live in the same house and have not had the disease attend School for three weeks from the commencement of the whoop. In no case should they go to School if they have any cough or cold.

Mumps.

How to Tell if a Child has Mumps.—When sickening for mumps the child feels ill, has fever, the glands under the ear become tender, and a hard, shiny, and sometimes a red swelling forms and gradually spreads over the side of the face. In a day or two this goes down, but the other side of the face may then swell in the same way. All swelling is usually gone in a fortnight, but the patient must not mix with others for a week after there is no sign of swelling left. Mumps is infectious for 21 days from the start.

Treatment.—Avoid chills, keep the bowels open, and if the pain is bad apply hot fomentations. As eating may be painful give liquid or soft food, which should not be too hot. Complications may follow mumps, therefore if the temperature is at all high, the doctor should be sent for without delay. Mumps takes 24 days to develop after infection.

Chicken Pox.

How to recognize Chicken Pox.—Chicken pox sometimes begins with slight fever, but more often the appearance of spots is the first sign of illness. The spots are generally few in number and appear in groups on any part of the body, but especially on the scalp. At first they are pale pink, later they form blisters which dry up into brown scabs ; these fall off in the course of a few days.

Treatment.—The patient should be kept warm, though not necessarily in bed, unless feverish. The diet should be light and nourishing, and special attention should be paid to the bowels. The spots must not be rubbed or scratched, as this will produce a permanent scar. Chicken pox takes from 12 to 19 days to develop after infection. The child is infectious for 20 days, and under any circumstances until every scab has fallen off.

What to do in Emergencies.

Convulsions may come from constipation, indigestion, or may be the beginning of a very serious illness. They are more liable to occur during teething and in rickety infants. *Send at once for the doctor,* and in the meantime give less food and do not alter the hours. The convulsion will probably begin by twitching of face and limbs, the baby stiffens and looks bluish. While the doctor is coming, put the child into a hot bath. You can test the heat by plunging your own elbow into the water. If the water feels comfortably warm to you, it will be right for the child. You can keep the child in the water as long as 10 minutes, but the head should be kept cool by wrapping round it a cloth dipped in cold water. Give plenty of fresh air. When you take the child out of the bath, wrap it in a warm blanket and keep it warm near the fire.

Cuts.—If the skin is injured wash it well with clean, hot water, to get rid of any dirt, and then, if bleeding freely, pressure should be applied on the bleeding spot by a firm pad, such as a clean folded pocket handkerchief fastened on with a bandage. Plaster may be used to keep the dressing in position, but it should on no account touch the wound.

Burns and Scalds.—*If the burn or scald is severe, or extensive, send at once for the doctor, as the child may die of shock.* If the burn is slight, causing reddening of the skin only, temporarily cover with lint, and bandage to keep the air away. If a blister is produced, soak a piece of clean linen rag in olive, salad, carron, or linseed oil, and cover the blister with this. Children suffer greatly from shock after a burn, so put them to bed wrapped in a blanket and keep them warm with a hot water bottle. Send for a doctor.

Things in the Ear.—Children sometimes stuff things into their ears. No sharp instrument must be used to get them out, as it is very easy to injure the ear, causing deafness. Therefore take the child immediately to the doctor.

Things in the Eye.—Only very slight accidents should be dealt with at home, as it is very easy to injure the eyes. If there is the least difficulty a doctor must be consulted. The upper lid of the eye should be pulled up and the lower lid down : if the object is then seen, it may be taken out with the corner of a clean handkerchief.

Things in the Nose.—Children sometimes push things up their noses. If the child is old enough, it should be told to blow its nose violently. No sharp instrument must be used. If blowing the nose is not successful, the child must be taken to a doctor.

Hard Things Swallowed.—Children sometimes swallow buttons, coins, pins, fruit stones, bits of coal, &c. If the article has really gone down, it is generally recommended that the child should be given something stodgy to eat, such as plenty of bread, suet pudding, a bun, or potatoes, which will cover the object and prevent its sharp edges from doing harm. The motions must be carefully searched until the swallowed article is found, or the child may be sent to the hospital for X-Ray examination. Never give opening medicine.

Choking.—If the thing sticks in the throat and the child chokes and fights for breath, no time must be lost. Hold the child upside down by its feet and firmly pat the back. This may dislodge the article. If not, put the finger down the throat and try to loosen or hook up the article swallowed. If the coin, or whatever it is, has stuck in the throat, and yet the child can breathe, keep the child quiet and send for the doctor.

Bleeding from the Nose Arising Without an Accident.—Loosen all clothing round the neck, open the window and make the patient sit in a chair with his head thrown slightly back. Wring out a sponge or cloth in cold water and put it at the back of the neck, and a handkerchief dipped in cold water to the top of the nose. If the bleeding is slight, the hands may be raised above the head, but this must not be done if the child feels faint.

If after a bad fall or accident there should be bleeding from the ears or nose, call in a doctor *at once*, as this may be a most serious matter, also if the child is stunned by the fall, or if he vomits after it.

Simple Recipes.

The following may be ordered for babies by the doctor :—

Albumen or Egg Water.—Put the white of one fresh egg into a clean jug, and add to it half a pint of cold boiled water. Shake gently or beat with fork.

Arrowroot Water.—Take two teaspoonfuls of best arrowroot, mix smoothly with a pint of water, put in a saucepan and simmer for five minutes, stirring all the time.

Baked Flour.—Tie up one pound of flour in a cloth which has been dipped in boiling water. Boil for 3 hours. Bake in a cool oven for from 4 to 6 hours. When cold, peel off the outer layer of the ball. What remains may be used as required by scraping off as much as is needed, and making it into a paste with boiled milk. To make into food, take a tablespoonful and mix it into a paste with about one pint of milk ; boil for 10 minutes or longer, stirring all the time. Add sugar to flavour. This food may be made either thick or thin.

Barley Water.—Take a tablespoonful of the best pearl barley, wash it in cold water, place it in a saucepan with 1½ pints of water and bring to the boil. Simmer gently for an hour and a half, make it up to one pint at the end of the time and then strain through a clean strainer. It must be kept covered in a clean place, and made fresh every day, or in hot weather twice a day. A flavouring of lemon is very nice, if the barley water is used as a drink without milk. Barley water may also be made from prepared barley, but as such barley water contains a large amount of starch, it should not be given to babies under six months of age, nor at any time unless the infant has been thoroughly trained to digest starch.

Bread Jelly.—Take 4 ozs. of stale bread crumb. Break it up and cover it with cold water. Leave it to soak in a covered basin for 8 hours, then pour off the water and press the pulp dry with a wooden spoon. Put the pulp into a pint of water in a jam-pot, and place this in a saucepan of water and boil for 1½ hours. While still hot strain it, and when it is cold it will be a jelly ready for use.

Oatmeal Jelly.—Take 2 ozs. of oatmeal, cover with one pint of cold water, and stand overnight. Add a little salt, simmer for half an hour, then strain, and add a squeeze of lemon juice and a little sugar. Let the jelly stand, and it will then be ready for use.

Pulled-Bread.—Pull some stale bread to pieces and put these in a fairly hot oven for about 20 to 30 minutes, or till crisp.

Raw Meat Juice.—Take 4 ozs. of prime rump steak, remove the fat and mince finely. Mix thoroughly with 1 oz. cold water, place it between two plates, allow it to stand for half an hour in

a cool place and squeeze through muslin. The juice should always be diluted with rather more than an equal part of water. It should not be boiled nor mixed with very hot water.

Rice Water.—Wash thoroughly two dessert-spoonfuls of Carolina rice, then soak in a saucepan for two hours in warm water ; then bring it to the boil slowly, and strain through a clean strainer. Cover when not in use.

Substitutes for Fruit Juice.

(1) Cut open a raw swede or turnip. With a spoon scoop out some of the pulp. Strain through muslin and give one or two teaspoonfuls daily, either in the artificial food or separately.

(2) Strained tomato juice (either from fresh or preserved tomatoes) may be used as an excellent substitute for fruit juice.

(3) Carrots or parsnips can be used in the same way as swedes or turnips.

(4) The scrapings of apples or pears will also serve the same purpose. All such juices should be given raw.

Veal or Mutton Broth for Babies.—Take half a pound of knuckle veal or mutton, remove skin and fat, cut up into small pieces, and put in a covered jar with a few pieces of chipped fresh bone and a pint of cold water ; place in the oven and bake for 3 or 4 hours ; strain and remove fat, and fill up with water to make the full pint again.

Whey.—Tie a square of boiled and dried muslin over a good sized basin. Warm a pint of milk to blood heat in a saucepan, add a teaspoonful of rennet (junket powder may also be used) and in a few minutes, when the curd has set, pour on to the muslin and break up with the edge of a spoon till all the whey has run through. Pour the whey back into the saucepan, and heat to 150° F. for 40 minutes ; do not boil (otherwise it will curdle any milk which is mixed with it). Keep it covered. Secwa, i.e., Dried Whey powder, can be bought from a chemist, and has only to be mixed with boiled water.

Boracic Lotion.—Take a clean jug and scald it. Put one teaspoonful of boracic acid crystals into the jug. Add one pint of boiling water—the crystals will dissolve in the water. Cover and stand till cold. Have ready a clean glass bottle and a clean cork ; pour in the lotion and label.

For use : Take half the quantity desired, and add to that an equal quantity of boiling water. Bathe with clean cotton wool or boiled white rag.

Divide the rag or cotton wool into a number of small pieces, and wipe the damaged part once only with each piece, burning it immediately after use.

Clean Milk.

THE SUPPLY.

The family should be protected by obtaining pure and clean milk from a good dairyman rather than from a general shop.

Pure milk should show no deposit whatever at the bottom of the vessels in which it is kept. If there is any deposit, complaint should be made at once to the dairyman ; and if the deposit continues after complaint, the dairyman should be changed.

Milk from a clean farm will keep much better than milk from a dirty one.

CONTAMINATION IN THE HOME.

Such contamination by dirt or filth occurs from :—

(1) Improperly cleansed milk vessels.

(2) The storage place being unsuitable.

(3) The receptacles being uncovered.

(4) Flies and dust.

Contaminated milk may cause diarrhœa, consumption, typhoid fever, scarlet fever, diphtheria, and other serious diseases. Therefore have

CLEAN MILK VESSELS.

Immediately after use, milk vessels should be thoroughly rubbed and washed out with cold water, and then dipped into boiling water and left there for some time ; or, if too large, thoroughly scalded with boiling water.

A CLEAN, COOL PLACE OF STORAGE.

The storage place should be in a well-ventilated, clean and cool pantry or cellar, and **not** in a warm or dusty kitchen.

Souring is due to the rapid increase in the number of germs in the milk, and if milk is kept cool, these germs do not multiply so rapidly, and souring is thereby delayed.

That is the reason why milk keeps much better in winter than in summer.

Warmth is equally favourable for the multiplication of many disease-producing germs in milk. The milk must, therefore, be kept at as low a temperature as possible.

The milk-jug should be placed in a basin of cold water in summer-time, especially where there is no pantry or cellar.

Even under the best conditions it is undesirable to keep fresh milk for any length of time.

COVERED VESSELS.

All milk, whether liquid, condensed, or dried, should be kept in covered vessels to prevent the entrance of flies and dust. (See page 42.) In the case of condensed milk, special precautions are necessary to guard it against contamination after the tin has been opened. It is therefore recommended that small tins should be purchased and the contents poured out from a small hole made with a clean instrument.

It is a mistake to suppose that milk will not keep sweet if it is covered.

Cleanliness in the Home.

Disease follows Dust and Dirt.

Fresh Air, Sunshine and Cleanliness will keep Disease at bay.

It is Cheaper to use Hot Water and Soap than to be ill.

THEREFORE

1. Wash the floors of bedrooms every week.

2. Wash the floors of living rooms frequently, especially where there are children ; and sweep them, with the window open, every day.

3. Damp tea-leaves or damp sawdust will keep down the dust during sweeping.

4. Draw back the curtains and pull up the blinds, so that air and sunshine may enter.

5. Keep the corners and cupboards clean, also the wood-work and ledges, where dust accumulates.

6. Keep the staircase and passages clean. Give them a wash every week.

7. A good housewife keeps her hearth, her doorstep, her scullery, and her sink clean.

8. Get rid of all vegetable and animal refuse as soon as possible, preferably by burning.

9. See that the closets, gullies, and yard are cleansed every week.

10. Keep yourself and your children as clean and tidy as you can.

11. Train your children in cleanly habits, and bathe them often ; it will make a great difference to the cleanliness of your beds and bedding.

Fresh Air and Ventilation.

Fresh air is necessary to health and can be had for nothing.

Fresh air in our rooms and houses helps us to keep off disease.

Consumption, anæmia, headache and want of energy, are found in people who live in stuffy, closed-up rooms.

The air breathed out by human beings and animals is hurtful.

This foul air is given out during sleep as well as at other times.

Gas-burners and candles help to use up the good air.

We must get rid of all impure air from our rooms and houses.

THEREFORE

1. Windows in sleeping rooms should be open at least 10 inches at the top all night, and not obstructed by blinds or curtains.

2. Windows in living rooms should be wide open at the top all day.

3. In rooms in which people both live and sleep, it is doubly necessary that the windows should **always** be open at the top.

4. The size of the opening can be regulated according to weather.

5. Keep the staircase windows open, and flush your rooms with fresh air several times a day by opening wide the windows and doors of all rooms.

6. Leave your chimney register always open.

Troops find no difficulty in sleeping in the open ; delicate children, taught in open-air schools, grow strong and improve in health ; consumptive people are sent to open-air Sanatoria. It is all a matter of habit. Get that habit and stick to it.

Sunlight.

Sunlight is even more precious for children and for expectant and nursing mothers than for other people. It is the light and not the heat of the sun that is so good, never better than in the early morning when it is not too hot and the smoke from all our coal fires has not spoilt it. Glass obstructs the very best part of what the sun sends us and so we must open windows to let the whole good in. Eyes and heads must always be protected—with a light linen hat, for choice.

Sunlight is something quite distinct from fresh air. We know now that sunlight is the best and cheapest tonic ; it is the best and cheapest preventive and antidote against rickets ; and it enables the blood to hold and use some of the most valuable things in our food, such as iron and lime, and phosphorus and iodine. Colour in carpets is less lovely and precious than in children's cheeks.

Unaccustomed skins must not suddenly be exposed at length to sunlight. We must always "Hasten slowly." A very few minutes are enough for feet and legs for the first day and gradually include the arms and hands, always remembering to keep the head protected. The skin should begin to tan, and when it is well tanned it will profit by two or three hours' exposure every day, but not till then.

Rickets cannot stand the light of day ; tuberculosis has a poor chance against it ; the blood is enriched against many diseases. Our sunlight is not as abundant as in Italy, for instance, but we have enough if we would use it sensibly when we have the chance, and especially if we would stop spoiling it with smoke in our cities. When we do that we shall have fresh air really fit to breathe and plenty of light to live by.

Of all growing creatures especially, light is the creative friend ; and this means that we need more light for expectant and nursing mothers as well as for babies and young children. With wiser feeding and more sunlight we should, for instance, entirely stop the injury to the teeth which so many expectant mothers now endure.

The Dangers of Flies, Fleas, and other Vermin.

Flies, fleas, and other vermin show the peril of **dirt.** They show us that it is useless to think that dirt can lie un-noticed. If we are too lazy to remove and destroy it, decay sets in, and dirt and refuse become a breeding-place for vermin. Within an incredibly short space of time their eggs are hatched, and from the dirt we have neglected, they come—a living form of dirt—to bring to us the dreadful illnesses which we could have kept away **by cleanliness.**

WHAT FLIES DO, AND HOW TO PREVENT IT.

Flies may bring tuberculosis, enteric, cholera, summer diarrhœa, and other diseases by carrying on their feet, wings, and snouts, filth of every kind and depositing it on our food, especially on milk, jam, and meat. They also spit on any solid food, in order to soften

it before eating it. They breed in refuse of all kinds, but chiefly in horse manure and in kitchen refuse, especially if the latter is allowed to lie about damp. Cabbage stalks, potato peelings, bones, and damp tea-leaves, although clean in themselves, soon decay, and it is in fermenting refuse that flies breed most quickly. All flies and vermin must of course be killed when they appear. Sticky fly-papers, frequently renewed, are useful, and should be hung as far from the windows as possible. This is the smallest part of the precautions that must be taken against them. The main thing is to prevent them from breeding by **destroying their breeding places.**

Take great care to prevent flies coming in contact with any sick person, or with material connected with such a person.

Protect all food from flies, especially milk, and remove all scraps and crumbs from the table immediately after meals.

Do not put any vegetable or animal refuse in the dustbin, but **burn** it. Keep the lid on the dustbin, and keep its contents dry. Do not let any rubbish lie about the yard or house. Sweep the outsides of your window ledges. A little paraffin smeared on the sashes is a good thing to keep flies away. In the country, refuse and rubbish may be deeply buried. Local authorities in towns should be asked to remove refuse daily, instead of once a week.

WHY BODY VERMIN ARE INJURIOUS TO HEALTH.

Body vermin, such as fleas, bugs, and lice, are injurious to health, especially of children, in that

(1) They cause discomfort and loss of proper rest;

(2) They cause injury to the skin, with consequent possibility of absorption of dirt and infectious matter;

(3) They may directly carry serious disease, such as typhus fever or plague, &c., through their bites.

HOW TO PROTECT OURSELVES FROM FLEAS.

Fleas come to us from the bodies of persons or animals, and by their bites infect us with the disease from which such persons or animals may be suffering. The deadly bubonic plague is carried by fleas from infected rats.

They breed in **dust,** which is allowed to lie long in one place. They get behind the cracks of dirty wall-paper and breed there, but their chief breeding place is in the cracks of floor-boards and in dirty mats, blankets and carpets. Therefore wipe down the walls with a duster over a broom, sweep the floor-boards, then wash them with boiling water and soap. Chloride of lime and tar-water may also be used.

Dirty carpets and mats should be **shaken** to loosen the dust, and then thoroughly brushed. The dust, which will contain the eggs of the fleas, should be placed in a newspaper and then burned, so that the eggs may be **destroyed.** Any mat or chair where a cat or dog sits should be specially watched, and the cats and dogs themselves kept clean, as if they are neglected they are great harbourers of fleas, and specially dangerous when near children.

HOW TO DEAL WITH LICE AND BUGS.

Lice (when coming from diseased persons) infect us as fleas do by their bites.

They breed in dirty hair and dirty garments, especially woollen ones ; they lay their eggs chiefly under the **seams,** where they escape notice and are not easily rubbed off.

Dirty garments should be washed in **boiling water,** or baked. Dry heat is more fatal to lice than moist heat. The seams may be ironed with **very** hot irons, or a mixture of soft soap or vaseline with petrol (1 in 4) may be rubbed into the seams and folds of clothing, or a powder consisting of 1 part of borax and 3 of black hellebore powder may be freely dusted over the clothing. Underclothing should be taken off at night, and should be changed regularly and washed in hot water.

Children's hair and scalps may be carefully sponged with vinegar, and then well combed with a small-tooth comb. Paraffin, mixed with equal parts of olive oil, is a good remedy, but is not so safe, as it should not be used near any light. It should be left on for 24 hours, and then washed off.

To keep the hair free from vermin, girls' hair should be worn plaited, and boys should wear theirs cut short ; both should have their heads washed once a week.

Infected bedding may be treated in a disinfecting apparatus, or by twice repeated fumigations with sulphur in the home. This also destroys bed-bugs, which are dangerous and should be exterminated.

To **fumigate** a small room, place a pound sulphur candle in a large flower-pot saucer, which in its turn should be put in a pail to protect the floor of the room from a possible overflow of the burning material. Before setting light to the sulphur, shut up every crack and cranny of the room or house to be fumigated by means of gummed paper, so as to make it as near as possible air-tight. Also stand a small saucepan or kettle of nearly boiling water in the room. Do not open for at least four or five hours, a longer time still being much more likely to ensure success. Another way of destroying bugs is to put ½ lb. soft soap and 1 pint of paraffin,

mixed with a little water, into all cracks and crevices, with small brushes or feathers, or inject it with a syringe. Oil of turpentine may also be used in the same way. Boiling water is also effective when it can be used. The " flares " which painters use in burning off paint, have proved of great use in ridding match-boarding or wainscotting of bugs. **This must only be done by a skilled person.** Passed quickly along, the flame does not burn the wood, but it is fatal to the bug and its young and to its eggs.

Flowers of sulphur or insecticide powders will keep away lice.

The important part of all these precautions is that they should be **continuous.** We must never think that " just for once " it will not matter leaving the milk where flies can get to it. If a child is ill, no trouble is too much for its mother to take to try to cure it, and she will gladly sit up with it night after night for weeks if necessary to soothe its suffering. Why then should she grudge the short time that is necessary every day to **prevent** this suffering, by clearing away everything that can harbour the insects which may at any moment poison her child ?

No one would dream of leaving poison where a child could reach it, but these poison-insects do not wait to be touched—they seek out human beings and attack them.

HOW HELP MAY BE OBTAINED.

Local Sanitary Authorities have the power to allow anyone to have the use, **free of charge,** of the apparatus which the authority may possess for cleansing the person and his clothing from vermin. It is essential in dealing with vermin that, at the same time as the body and clothing are cleansed, the **bedding** at home should also be purified, in order to prevent re-infection. Further, for the same reasons, **all infected people** living in the same house should be dealt with at the same time. In some districts, on application being made, the necessary material for dealing with verminous heads is sent to the home of the applicant. In the case of school children, the school nurse will give instructions as to the treatment necessary. At some schools disinfectors and baths have been provided for the purpose.

THE NEED FOR CLEANLINESS.

We must each do our part by cleanliness to stamp out the danger of these terrible diseases, always remembering that it is not only the lives of our own families that we endanger by our slovenliness, but that from them infection may spread in a large circle around.

Remember that insects and vermin will not breed if their breeding-places are removed.

THEREFORE DESTROY ALL DIRT.

Hints on Washing.

Clothes last much longer if carefully washed and dried than if they are allowed to lie about wet and dirty and are roughly treated in the wash-tub and mangle.

On washing day the door of the scullery or wash-house should be kept closed, so that the steam does not get all over the house.

Use pure yellow soap.

It is best to wash flannels and " woollies " with soap jelly. This should be made from little odd pieces of soap, and should not be made long before it is needed, as dissolved soap loses its strength if kept. To make soap jelly, shred the soap, and cover it with cold water in the proportion of one pint of cold water to a quarter of a pound of yellow soap. Let the soap boil slowly until it is clear.

Before washing, the clothes should be looked over and the edges of any rents or holes roughly drawn together with coarse thread. This saves much trouble later on. The clothes must be sorted into heaps, the white woollens, coloured woollens, and stockings making three separate piles. Coarse things, such as dusters and kitchen cloths, should also be kept by themselves.

To Wash Woollen Garments.—Woollen garments must be washed as quickly as possible. If left lying about damp, they shrink and lose their shape. Prepare three basins of water (warm), and to the first add enough soap jelly to make a lather. Put in one garment at a time, and wash it by squeezing and kneading. Do not rub the garment if you can get it clean without doing so. Rinse the garment in two sets of water, put it through the wringer, pull it into shape, and hang it up to dry as quickly as possible, preferably in the open air. Coloured flannels may be rinsed in water to which a little vinegar (one tablespoonful to a gallon) has been added. This revives the colour. Coarse flannels will not need ironing, fine ones should be ironed on the wrong side only.

Stockings should be hung up by the toes to dry.

Avoid very hot or cold water, rubbing with soap, leaving the flannels lying about wet, drying too slowly or very close to a hot fire, ironing with a very hot iron while wet.

Feeding Table for Bottle-Fed Infants.

Age.	Time.	No. of Feeds in 24 hrs.	Tablespoonsful of Cow's Milk.	Tablespoonsful of Water.	Teaspoonsful of Cream or Equivalent.	Teaspoonsful of Sugar.	Total quantity of Milk in 24 hours.
1st–14th day	3–hourly (No night feed)	6	1–2	1–2	½	½	3–6 ozs.
14th–28th ,,	,, ,,	6	2–3	2–3	½	½	6–9 ,,
1st–2nd month	,, ,,	6	3	3	1	1	9 ,,
2nd–3rd ,,	,, ,,	6	4	4	1	1	12 ,,
3rd–6th ,,	,, ,,	6	4–5	4–5	1	1	12–15 ,,
6th–9th ,,	4–hourly	5	6–8	6–8	1½	1½	15–20 ,,
9th–12th ,,	,, ,, (Diet should now be given)	4	10–11	10–11	2	2	20–22 ,,

NOTE.—Fresh butter or cod-liver oil may be used instead of cream, but give half the above amounts. (A tablespoonful is half an ounce; 20 ounces equal a pint.)

If for any reason cream or a substitute is not used an appropriate extra quantity of milk and water must be added.

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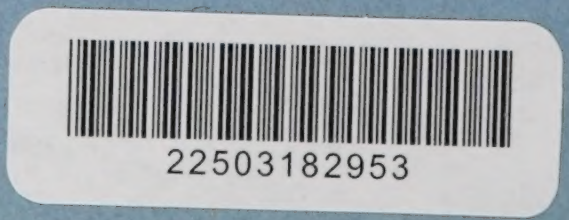
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